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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/613,450 | 07/03/2003 | Klaus Gisbert Schmitt | 0275M-000752 | 6512 |

27572 7590 09/14/2004

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| EXAMINER |
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SHAW, CLIFFORD C

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| ART UNIT | PAPER NUMBER |
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1725

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,450

Applicant(s)

SCHMITT ET AL.

Examiner

Clifford C Shaw

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 and 39-49 is/are rejected.
- 7) ☒ Claim(s) 37 and 38 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1219 and 0220.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Detailed Action

1.) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.) Claims 22 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 22 and 45 call for moving a fastener perpendicular to a longitudinal axis of the fastener. There is no disclosure in the specification of this feature and it is therefore unclear what the scopes of claims are. The specification does disclose a rotary motion of the fastener (see element 26 in figure 1) and a translation motion that is parallel to the longitudinal axis of the fastener (see element 28 in figure 1). For the purposes of this Office action, claims 22 and 45 will be considered to be directed to a translational movement that is parallel to the longitudinal axis of the fastener.

3.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.) Claims 20, 21, 24, 25, 34, 35, 39, 40, 43, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoup et al. (4,074,103). Figures 1, 2, 7, and 8 and the discussion thereof

Art Unit: 1725

disclose an arrangement for arc welding fastener 24 to coated structure 26 with the claimed features including positioning fastener 24 in contact with coating 28 and rotating fastener 24 via elements 132 and 124 to produce electrical contact between 24 and 26.

5.) Claims 20, 22, 34-36, 39, 40, 43, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Hughs, Jr. (3,825,717) or Wenrich et al. (3,696,227). Either one of Hughs, Jr. (3,825,717) or Wenrich et al. (3,696,227) disclose translational movement of a fastener prior to arc welding to break through a workpiece covering as claimed (see the abstract in Hughs, Jr. (3,825,717) and see the discussion at column 2 in Wenrich et al. (3,696,227)).

6.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7.) Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shoup et al. (4,074,103) taken with the British document no. GB2065011A, cited by applicant. The only aspect of the claim to which the rejection of paragraph 4 above does not apply is the provision for a particular fastener geometry. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have practiced the teachings of Shoup et al. (4,074,103) in conjunction with any well known type of fastener. In particular, it would have been obvious to have used a fastener with the features claimed, the

Art Unit: 1725

motivation being the teachings of the British document no. GB2065011A that such are advantageous for arc welding (see the annular projection at element 28 in the British document no. GB2065011A).

8.) Claims 23, 41, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Shoup et al. (4,074,103), Hughs, Jr. (3,825,717), or Wenrich et al. (3,696,227) as applied to the claims above, and further in view of Sneddon, Jr. (2,782,451). The only aspect of the claims to which the rejection above does not apply is the provision for using a vacuum or air pressure to clear away debris. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have provided the systems of any one of Shoup et al. (4,074,103), Hughs, Jr. (3,825,717), or Wenrich et al. (3,696,227) with a vacuum cleaning system, the motivation being the teachings of Sneddon, Jr. (2,782,451) that it is advantageous to vacuum prior to welding to clear debris from the work area (see element 19 in figures 1 and 2 in Sneddon, Jr. (2,782,451) and the discussion thereof).

9.) Claims 27-33, 42, 46, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Shoup et al. (4,074,103), Hughs, Jr. (3,825,717), or Wenrich et al. (3,696,227) as applied to the claims above, and further in view of Kregel et al. (6,762,392). The only aspects of the claims to which the rejections above do not apply are the provisions for cleaning with an arc, alternating polarity, and providing a magnetic field. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have provided the systems of any one of Shoup et al. (4,074,103),

Art Unit: 1725

Hughs, Jr. (3,825,717), or Wenrich et al. (3,696,227) with the aforementioned features, the motivation being the teachings of Krengel et al. (6,762,392) that such are advantageous for welding a fastener (see the cleaning arc discussed in the abstract, the polarity shift as shown in figure 3 and the magnetic field associated with element 3 in Krengel et al. (6,762,392)).

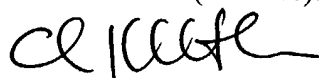
10.) Claims 37 and 38 are objected to for depending from rejected claims, but would be given favorable consideration if recast in independent form to include all of the limitations of the parent claims. None of the prior art of record teaches or suggests the particular drive features combined with the other claim elements.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
Art Unit 1725

September 9, 2004